ARARs Q's and A's:
State Ground-Water Antidegradation Issues

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United States Environmental Protection Agency | Office of Solid Waste and Emergency Response | Publication 9234.2-11/FS | July 1990

EPA ARARs Q's & A's: State Ground-Water Antidegradation Issues

Office of Emergency and Remedial Response
Office of Program Management OS-240

Quick Reference Fact Sheet

Section 121(d)(2) of CERCLA, as amended by the 1986 Superfund Amendments and Reauthorization Act (SARA), requires that remedial actions must at least attain Federal and more stringent State applicable or relevant and appropriate requirements (ARARs) upon completion of the remedial action. The 1990 National Contingency Plan (NCP) requires compliance with ARARs during remedial actions as well as at completion, and mandates attainment of ARARs during removal actions to the extent practicable. See revised NCP, 40 CFR section 300.435(b)(2) (55 FR 8666, 8852)(March 8, 1990) and section 300.415(i) (55 FR 8666, 8843)(March 8, 1990).

This Q's and A's fact sheet is designed to provide guidance on the status of State ground-water antidegradation provisions as potential ARARs for CERCLA ground-water and soil remedial actions. The guidance in this fact sheet reiterates Agency policy already in practice in EPA's Regional offices. The goal and policy of the Superfund program is to return usable ground water to its beneficial uses within the timeframe that is reasonable, given the particular circumstances of the site. In addition to our goal of ground-water cleanup, Superfund has a nondegradation policy in that we strive for the prevention of further degradation of the ground water during our remedial actions. However, it should be noted that more stringent State standards than those imposed by EPA policy may be imposed by State antidegradation requirements. Such State requirements, if they have been determined to be ARARs for the site, would have to be met (e.g., by meeting the discharge requirements) or waived (e.g., by the interim remedy waiver). Nevertheless, even where temporary degradation of the ground water may be required during the remedial action, we will provide protection by restricting access or providing institutional controls, and EPA response actions will ultimately result in restoration of the ground water's beneficial uses.

(NOTE: States use the terms "nondegradation" and "antidegradation" interchangeably; there does not appear to be a consistent distinction between the two. As a result, all State nondegradation and antidegradation requirements are referred to in this fact sheet as antidegradation requirements.)

Q1. What is a State ground-water antidegradation requirement?

A. State antidegradation requirements vary widely in their scope and drafting. However, as a general rule, they are anti-pollution requirements (not cleanup requirements) designed to prevent degradation of the surface water or ground water. Antidegradation requirements typically accomplish their purpose in one of two ways: (1) by prohibiting or limiting discharges that potentially degrade the surface water or ground water (typically action-specific requirements); or (2) by requiring maintenance of the surface-water or ground-water quality consistent with current uses.

Under the Clean Water Act, every State is required to classify all of the waters within its boundaries according to their intended use. As required by EPA regulation, all States have established surface-water antidegradation regulations. These requirements may be potential ARARs for CERCLA remediations involving discharges to surface water. Although not specifically required by EPA, the majority of States have also established some form of ground-water antidegradation provisions. These States may have enacted specific ground-water antidegradation statutes, or they may include ground-water protection provisions within general environmental statutes. These State provisions for ground water may constitute potential ARARs for CERCLA remediations that have an impact upon the ground water (e.g., ground-water reinjection or soil flushing).

Q2. State antidegradation requirements are often expressed as general goals. Can they be potential ARARs?

A. Yes, antidegradation requirements expressed as general goals may be potential ARARs if they are:

(1) directive in nature and intent; and (2) established through a promulgated statute or regulation that is legally enforceable (see Preamble to the revised NCP at 55 FR 8746).

Antidegradation provisions are directive in nature when they contain narrative or numerical limits, or are implemented by State regulations that provide needed specificity. For example, general antidegradation goals are sufficiently directive when implemented by regulations setting limits that ground-water contamination may not exceed. When a general State antidegradation statute does not have any implementing regulations, EPA has considerable discretion in determining what is required to interpret or comply with the law (see Preamble to the revised NCP at 55 FR 8746).[1] For example, EPA may look at State surface-water or ground-water use and classification systems, such as those that set water-quality standards, since they designate uses of a given water body and/or maximum concentration levels to protect those uses. Alternatively, EPA may look at a State's wellhead protection program for requirements concerning ground-water maintenance. If the State's narrative, general antidegradation goals stand alone, they may be nothing more than statements of intent about desired outcomes or conditions. Statements of intent are insufficiently directive to constitute potential ARARs. Likewise, vague or ambiguous narrative descriptions of ground-water degradation limits probably do not provide sufficient direction to constitute potential ARARs (see Preamble to the revised NCP at 55 FR 8746).

To be considered a potential ARAR, a State antidegradation law must be established through a promulgated statute or regulation that is legally enforceable and "of general applicability" (see NCP, section 300.400(g)(4)). To be legally enforceable, State standards must be requirements -- not guidance -- that are issued according to the State procedural requirements and that contain certain specific enforcement provisions or are otherwise directly enforceable under State law (see Preamble to the revised NCP at 55 FR 8746). The phrase "of general applicability" means that potential State ARARs must be applicable to all remedial situations described in the requirement, not just to CERCLA sites (see Preamble to the revised NCP at 55 FR 8746).

Q3. At what point do State ground-water antidegradation requirements become ARARs at a Superfund site?

A. Antidegradation requirements are generally action-specific requirements that may apply during the course of and at the completion of the Agency response action. They apply prospectively, and generally obligate the Agency only to prevent further degradation of the water during and at completion of the response action (not prior to it). While antidegradation requirements are not cleanup laws, in some limited cases they may, as relevant and appropriate requirements, be appropriate for establishing a cleanup level for past contamination.

Furthermore, EPA is not required to take any response action unless and until EPA determines that it is appropriate to do so. Even then, this action must meet (or waive) a State requirement only if the Agency determines that the requirement is an ARAR for the site. The Agency determines what Federal and State laws constitute ARARs that must be met or waived during or at the completion of a response action. Compliance with a specific Federal or State law is triggered when the Agency determines that a requirement is either applicable to site remediation, or relevant and appropriate because its use is well-suited to site circumstances. However, neither CERCLA nor the NCP requires the Agency to comply with ARARs prior to conducting a response action. Therefore, when the Agency decides to take a response action, and if the Agency determines that a State antidegradation requirement is an ARAR for a site, the Agency must meet or waive the requirement.

It should also be noted that only ARARs within the scope of the response action have to be met or waived. If the Agency is conducting an RI/FS to determine the action that may be necessary at a site, the State's ground-water antidegradation requirements are generally beyond the scope of the action, and therefore are not likely to be potential ARARs for it. Of course, if a proposed RI/FS activity such as site sampling has the potential to temporarily degrade the ground water, the specific terms of the State ground-water antidegradation requirement should be examined to determine whether it is an ARAR for that action.

Q4. When are State ground-water antidegradation requirements likely to be applicable to CERCLA remediations that affect the ground water? When they are applicable, what is required for compliance?

A. The attached matrix analyzes whether six hypothetical State antidegradation requirements for ground water are ARARs for four different CERCLA remediations. For most sites, the matrix may be helpful in determining whether State antidegradation require-

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[1] The State may argue that its interpretation of the meaning of the goal, or the State's non-binding guidance, should determine the statute's meaning. The State may also argue that State courts have upheld the state's interpretation of the requirement. If either of these arguments is raised, advice should be sought from the Office of Regional Counsel (ORC) or the Office of General Counsel (OGC).

ments are ARARs for remediations that affect the ground water. The information in the text of this fact sheet is provided to give the specific analysis and rationale underlying the conclusions reached in the attached matrix. Although only two of the six hypothetical State antidegradation requirements are analyzed here in detail, these principles should generally apply to most State ground-water antidegradation requirements.

Applicability of State ground-water antidegradation requirements depends upon three factors:

- The specific language of the State statute or regulations;
- The nature of the CERCLA remediation; and
- The circumstances at the site.

First, a review of the specific language of the State statutes (or regulations) reveals that most antidegradation requirements fall into one of two categories: (1) those that focus upon prohibited discharges; and (2) those that focus upon maintaining the ground water consistent with its uses. Second, with respect to the nature of the CERCLA remediation, there are three forms of remediation that may trigger ground-water antidegradation requirements: ground-water pump-and-treat, ground-water natural attenuation, and soil flushing. Finally, applicability is affected by the circumstances at the site such as the contaminant levels of the effluent, and the quality of the receiving aquifer. The sections that follow provide hypothetical examples of the applicability of State ground-water antidegradation requirements. The examples discuss the applicability of the two categories of State antidegradation requirements under the three different remediation scenarios (i.e., pump and treat, natural attenuation, and soil flushing).

[Note on "current uses": Some State antidegradation statutes require maintenance of ground-water quality consistent with its "current uses." Where the State statute (or implementing regulation) has defined "current uses," that definition should be considered an integral part of the requirement that helps determine whether EPA response actions comply with these requirements, if they are determined to be ARARs. For example, any State antidegradation statute that defines "current uses" as "present uses" would be met at sites where the CERCLA discharge is to an aquifer that is already contaminated such that it has no present uses. State antidegradation requirements that do not define "current uses" will generally be met at Superfund sites where EPA ground-water or soil remediation maintains, or does not adversely effect, the current quality of the aquifer. The following analysis of antidegradation requirements for maintaining the ground water is based upon the assumption that they do not define "current uses."]

Scenario #1: Pump-and-Treat

Assumption: The ground water is contaminated or, at a minimum, contains a plume of contamination. The ground water is a Class I or II aquifer (which means that it is or may be a potential source of drinking water).

A) **State ground-water antidegradation requirements that prohibit discharges:** These are not applicable to ground-water pump-and-treat remedies if there is no "discharge," as defined under the ARAR. However, even if the reinjections associated with each iteration during pump-and-treat constitute a discharge under the State statute, the statute is violated only if the discharge constitutes the type prohibited by the statute.

Compliance: If, for example, the statute prohibits discharges that are injurious to public health, the remedy generally would comply with it where the receiving aquifer is already contaminated. (A discharge of contaminated effluent into a contaminated aquifer generally would not be "injurious to public health.")[2] Moreover, the discharge, as part of a contained pump-and-treat system, may not be injurious to public health. [Note: Since it is EPA's goal to restore ground water to its beneficial uses, the Superfund program would rarely propose a pump-and-treat remedy that would degrade pristine or only slightly contaminated water. In those rare cases where the remedy involves reinjections to a pristine or only slightly contaminated aquifer, an interim action waiver might be appropriate.]

B) **State antidegradation requirements that require ground-water maintenance consistent with its current uses:** These generally are applicable to ground-water pump-and-treat remediations.

Compliance: The remedy generally would comply with these requirements during pump-and-treat remediations, if the remedy maintains (i.e., does not adversely effect) the current quality of the aquifer. Current quality of the aquifer should generally be maintained through pump-and-treat for two reasons: (1) pump-and-treat remediation will decrease, not increase, the contaminant level of the aquifer; and (2) it serves to contain the contaminated plume.

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[2] A State may argue that it has interpreted the phrase "injurious to public health" in guidance or policies, or that court decisions have addressed the issue, and that EPA must follow that interpretation. If such an argument is raised, it must be referred to ORC or OGC.